Title: METHOD AND KIT FOR IDENTIFYING VANCOMYCIN-RESISTANT ENTEROCOCCUS

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IN THE CLAIMS

Please amend the claims as follows:

- 1. (Currently Amended) A method to detect vanA in a sample, comprising:
- a) contacting a sample suspected of comprising amplified *vanA* nucleic acid with at least one *vanA*-specific oligonucleotide probe under conditions effective to form a hybrid between the *vanA*-specific oligonucleotide probe and *vanA* nucleic acid in the sample, wherein the *vanA*-specific oligonucleotide probe has [[about]] 15 to 40 nucleotides with at least 80% nucleic acid sequence identity to SEQ ID NO:3 or the complement of SEQ ID NO:3, wherein the amplified *vanA* nucleic acid is obtained with two oligonucleotide primers having [[about]] 15 to 40 nucleotides, wherein a first oligonucleotide primer has at least 80% nucleic acid sequence identity to SEQ ID NO:2, and a second oligonucleotide primer has at least 80% nucleic acid sequence identity to SEQ ID NO:4, wherein the probe is <u>one which under the same conditions hybridizes</u> eapable of hybridizing to SEQ ID NO:3 or its complement, wherein the first primer <u>hybridizes</u> is capable of hybridizing to the complement of SEQ ID NO:2, and wherein the second primer <u>hybridizes</u> is capable of hybridizing to the complement of SEQ ID NO:4; and
- b) detecting or determining the presence or amount of hybrid formation, wherein hybrid formation is indicative of *vanA* nucleic acid in the sample.
- 2. (Withdrawn) A method to detect *vanB* in a sample, comprising:
- a) contacting a sample suspected of comprising amplified *vanB* nucleic acid with at least one *vanB*-specific oligonucleotide probe under high stringency hybridization conditions effective to form a hybrid between the *vanB*-specific oligonucleotide probe and *vanB* nucleic acid in the sample, wherein the *vanB*-specific oligonucleotide probe comprises sequences which include sequences substantially corresponding to nucleotides 387 to 404 of the *vanB* gene, the complement thereof, or a portion thereof, sequences substantially corresponding to nucleotides 406 to 423 of the *vanB* gene, the complement thereof, or a portion thereof, or sequences substantially corresponding to nucleotides 426 to 446 of the *vanB* gene, the complement thereof,

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or a portion thereof; and

b) detecting or determining the presence or amount of hybrid formation.

- 3. (Withdrawn) A method to detect vanA in a sample, comprising:
- a) contacting a biological sample suspected of comprising nucleic acid with at least one vanA-specific oligonucleotide primer under conditions effective to amplify vanA nucleic acid, wherein the vanA-specific oligonucleotide primer comprises sequences which include sequences substantially corresponding to nucleotides 870 to 896 of the vanA gene, the complement thereof, or a portion thereof, sequences substantially corresponding to nucleotides 851 to 868 of the vanA gene, the complement thereof, or a portion thereof, or sequences substantially corresponding to nucleotides 898 to 917 of the vanA gene, the complement thereof, or a portion thereof; and
 - b) detecting or determining the presence or amount of amplified nucleic acid.
- 4. (Withdrawn) A method to detect *vanB* in a sample, comprising:
- a) contacting a biological sample suspected of comprising nucleic acid with at least one vanB-specific oligonucleotide primer under conditions effective to amplify vanB nucleic acid, wherein the vanB-specific oligonucleotide primer comprises sequences which include sequences substantially corresponding to nucleotides 387 to 404 of the vanB gene, the complement thereof, or a portion thereof, sequences substantially corresponding to nucleotides 406 to 423 of the vanB gene, the complement thereof, or a portion thereof, or sequences substantially corresponding to nucleotides 426 to 446 of the vanB gene, the complement thereof, or a portion thereof; and
 - b) detecting or determining the presence or amount of amplified nucleic acid.
- 5. (Withdrawn) The method of claim 3 wherein one *vanA*-specific oligonucleotide primer comprises sequences corresponding to nucleotides 851 to 868 of the *vanA* gene or a portion thereof.
- 6. (Withdrawn) The method of claim 3 wherein one *vanA*-specific oligonucleotide primer comprises sequences corresponding to the complement of nucleotides 898 to 919 of the *vanA* gene or a portion thereof.

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7. (Withdrawn) The method of claim 3 wherein the presence or amount of amplified nucleic acid is detected or determined with an oligonucleotide probe comprising sequences corresponding to nucleotides 870 to 896 of the vanA gene, the complement thereof or a portion thereof.

- (Previously Presented) The method of claim 1 wherein the vanA-specific oligonucleotide 8. probe consists of SEQ ID NO:3 or a sequence with 90% nucleic acid sequence identity thereto, or the complement thereof.
- (Previously Presented) The method of claim 8 wherein the amplified nucleic acid is 9. obtained by amplifying a biological sample comprising nucleic acid with at least one vanAspecific oligonucleotide primer which consists of SEQ ID NO:2 or a sequence with 90% nucleic acid sequence identity thereto, or to SEQ ID NO:4 or a sequence with 90% nucleic acid sequence identity thereto.
- (Withdrawn) The method of claim 4 wherein one vanB-specific oligonucleotide primer 10. comprises sequences corresponding to nucleotides 387 to 404 of the vanB gene or a portion thereof.
- (Withdrawn) The method of claim 4 wherein one vanB-specific oligonucleotide primer 11. comprises sequences corresponding to the complement of nucleotides 426 to 446 of the vanB gene or a portion thereof.
- (Withdrawn) The method of claim 4 wherein the presence or amount of amplified 12. nucleic acid is detected or determined with an oligonucleotide probe comprising sequences corresponding to nucleotides 406 to 423 of the vanB gene, the complement thereof or a portion thereof.
- (Withdrawn) The method of claim 2 wherein one vanB-specific oligonucleotide probe 13.

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comprises sequences corresponding to nucleotides 406 to 423 of the *vanB* gene, the complement thereof or a portion thereof.

- 14. (Withdrawn) The method of claim 13 wherein the amplified *vanB* nucleic acid is obtained by amplifying a biological sample comprising nucleic acid with at least one *vanB*-specific oligonucleotide primer comprising sequences corresponding to nucleotides 387 to 404 of the *vanB* gene or a portion thereof, or sequences corresponding to the complement of nucleotides 426 to 446 of the *vanB* gene or a portion thereof.
- 15. (Previously Presented) The method of claim 1 wherein the sample is a physiological sample.
- 16. (Original) The method of claim 15 wherein the sample is a peri-rectal sample.
- 17. (Previously Presented) The method of claim 1 or 8 further comprising contacting a corresponding sample with a probe which is not a *vanA*-specific probe.
- 18. (Previously Presented) The method of claim 1 or 8 further comprising contacting the sample with a probe which is not a *vanA*-specific probe.
- 19. (Previously Presented) The method of claim 17 further comprising comparing the presence or amount of hybrid formation with the *vanA*-specific oligonucleotide probe to the presence or amount of hybrid formation between the sample contacted with the non-*vanA* probe.
- 20. (Withdrawn) The method of claim 2, 12, or 13 further comprising contacting a corresponding sample with a probe which is not a *vanB*-specific probe.
- 21. (Withdrawn) The method of claim 2, 12, or 13 further comprising contacting the sample with a probe which is not a *vanB*-specific probe.

- 22. (Withdrawn) The method of claim 20 or 21 further comprising comparing the presence or amount of hybrid formation with the *vanB* probe to the presence or amount of hybrid formation between the sample contacted with the non-*vanB* probe.
- 23. (Previously Presented) The method of claim 17 wherein the non-vanA probe is a vanB-specific probe.
- 24. (Withdrawn) The method of claim 20 or 21 wherein the non-vanB probe is a vanA-specific probe.
- 25. (Previously Presented) The method of claim 8, wherein the probe is labeled.
- 26. (Withdrawn) The method of claim 23 wherein the *vanA*-specific probe is labeled with a different label than the *vanB*-specific probe.
- 27. (Withdrawn) The method of claim 24 wherein the *vanB*-specific probe is labeled with a different label than the *vanA*-specific probe.
- 28. (Withdrawn) A method to detect *vanA* nucleic acid and *vanB* nucleic acid in a sample, comprising:
- a) contacting a sample suspected of comprising amplified *vanA* nucleic acid or amplified *vanB* nucleic acid with at least one *vanA*-specific oligonucleotide probe and with at least one *vanB*-specific oligonucleotide probe under high stringency hybridization conditions effective to form a hybrid between the *vanA*-specific oligonucleotide probe and amplified *vanA* nucleic acid and between the *vanB*-specific oligonucleotide probe and amplified *vanB* nucleic acid, wherein the *vanA*-specific oligonucleotide probe comprises sequences which include sequences substantially corresponding to nucleotides 870 to 896 of the *vanA* gene, the complement thereof, or a portion thereof, sequences substantially corresponding to nucleotides 851 to 868 of the *vanA* gene, the complement thereof, or a portion thereof, or sequences substantially corresponding to nucleotides 898 to 917 of the *vanA* gene, the complement thereof, or a portion thereof, and

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wherein the *vanB*-specific oligonucleotide probe comprises sequences which include sequences substantially corresponding to nucleotides 387 to 404 of the *vanB* gene, the complement thereof, or a portion thereof, sequences substantially corresponding to nucleotides 406 to 423 of the *vanB* gene, the complement thereof, or a portion thereof, or sequences substantially corresponding to nucleotides 426 to 446 of the *vanB* gene, the complement thereof, or a portion thereof; and

- b) detecting or determining the presence or amount of hybrid formation.
- 29. (Withdrawn) A method to detect *vanA* nucleic acid and *vanB* nucleic acid in a sample, comprising:
- a) contacting a biological sample suspected of comprising *vanA* or *vanB* nucleic acid with at least one *vanA*-specific oligonucleotide primer under conditions effective to amplify *vanA* nucleic acid and with at least one *vanB*-specific oligonucleotide primer under conditions effective to amplify *vanB* nucleic acid, wherein the *vanA*-specific oligonucleotide primer comprises sequences which include sequences substantially corresponding to nucleotides 870 to 896 of the *vanA* gene, the complement thereof, or a portion thereof, sequences substantially corresponding to nucleotides 851 to 868 of the *vanA* gene, the complement thereof, or a portion thereof, or sequences substantially corresponding to nucleotides 898 to 917 of the *vanA* gene, the complement thereof, or a portion thereof, and wherein the *vanB*-specific oligonucleotides primer comprises sequences which include sequences substantially corresponding to nucleotides 387 to 404 of the *vanB* gene, the complement thereof, or a portion thereof, sequences substantially corresponding to nucleotides 406 to 423 of the *vanB* gene, the complement thereof, or a portion thereof, or sequences substantially corresponding to nucleotides 406 to 423 of the *vanB* gene, the complement thereof, or a portion thereof, or sequences substantially corresponding to nucleotides 426 to 446 of the *vanB* gene, the complement thereof, or a portion thereof; and
 - b) detecting or determining the presence or amount of amplified nucleic acid.
- 30. (Withdrawn) The method of claim 29 wherein the presence or amount of amplified nucleic acid is detected with at least one *vanA*-specific oligonucleotide probe and at least one *vanB*-specific oligonucleotide probe.
- 31. (Withdrawn) The method of claim 28 or 30 wherein the at least one vanA-specific

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oligonucleotide probe and the at least one *vanB*-specific oligonucleotide probe have different labels.

32-43. (Canceled)

- 44. (Previously Presented) The method of claim 18 further comprising comparing the presence or amount of hybrid formation with the *vanA*-specific oligonucleotide probe to the presence or amount of hybrid formation between the sample contacted with the non-*vanA* probe.
- 45. (Previously Presented) The method of claim 18 wherein the non-vanA probe is a vanB-specific probe.
- 46. (Previously Presented) The method of claim 1 wherein the *vanA*-specific oligonucleotide probe consists of SEQ ID NO:3 or a sequence with 85% nucleic acid sequence identity thereto, or the complement thereof.
- 47. (Previously Presented) The method of claim 8 wherein the amplified nucleic acid is obtained by amplifying a biological sample comprising nucleic acid with at least one *vanA*-specific oligonucleotide primer which consists of SEQ ID NO:2 or a sequence with 85% nucleic acid sequence identity thereto, or to SEQ ID NO:4 or a sequence with 85% nucleic acid sequence identity thereto.
- 48. (Previously Presented) The method of claim 1 wherein the *vanA*-specific oligonucleotide probe consists of SEQ ID NO:3 or a sequence with 95% nucleic acid sequence identity thereto, or the complement thereof.
- 49. (Previously Presented) The method of claim 8 wherein the amplified nucleic acid is obtained by amplifying a biological sample comprising nucleic acid with at least one *vanA*-specific oligonucleotide primer which consists of SEQ ID NO:2 or a sequence with 95% nucleic

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acid sequence identity thereto, or to SEQ ID NO:4 or a sequence with 95% nucleic acid sequence identity thereto.

- 50. (New) The method of claim 1 wherein the first primer consists of 15 to 40 nucleotides which include SEQ ID NO:2.
- 51. (New) The method of claim 1 wherein the second primer consists of 15 to 40 nucleotides which include SEQ ID NO:4.
- 52. (New) The method of claim 1 wherein the probe consists of 15 to 40 nucleotides and includes SEQ ID NO:3 or its complement.
- 53. (New) The method of claim 1 wherein the first primer consists of 15 to 40 nucleotides which include SEQ ID NO:2 and the second primer consists of 15 to 40 nucleotides which include SEQ ID NO:4.
- 54. (New) The method of claim 1 wherein the first primer consists SEQ ID NO:2 and the second primer consists of SEQ ID NO:4.
- 55. (New) The method of claim 53 or 54 wherein the probe consists of SEQ ID NO:3 or its complement.